

### ABSTRACT

5 A sealing technique is provided for forming complex and multiple  
seal configurations for fuel cells and other electrochemical cells. To  
provide a seal, for sealing chambers for oxidant, fuel and/or coolant, a  
groove network is provided extending through the various elements of  
the fuel cell assembly. A source of seal material is then connected to an  
external filling port and injected into the groove network, and the seal  
material is then cured to form the seal. There is thus formed a "seal in  
place", that is robust and can accommodate variations in tolerances and  
10 dimensions, and that can be bonded, where possible, to individual  
elements of the fuel cell assembly. This avoids the difficulty, labor  
intensive cost and complexity of manually assembling many individual  
gaskets into complex groove shapes and the like. The seal material can  
be selected to be comparable with a wide variety of gases, liquid  
15 coolants and the like.